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Middle Klamath River Sub-basin Planning

Final Report

US Fish and Wildlife Service
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Prepared by

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METHODS AND MATERIALS

Methods are outlined in the Phase I Middle Klamath River Sub-Basin Plan Draft, developed by the Karuk Tribe in January of 1999. Community members were invited to participate in restoration-focused workshops and meetings through a variety of mediums: notices were posted at local bulletin boards and business locations; local newsletters were distributed informing the public of upcoming meetings; and the Middle Klamath sub-basin coordinator invited individuals through personal communication. The Coordinator planned and attended specific neighborhood meetings to address local restoration needs. A localized strategy was employed to boost involvement of people who otherwise, would not attend large public meetings. Fisheries restoration needs and solutions, suggested by meeting participants, were recorded and then incorporated into the plan. The public's comments and restoration ideas generated during meetings were valued and utilized in the design of community-based restoration proposals.

ACTIONS DISSCUSSION

COMMUNICATION ACTIONS

The coordinator has facilitated, through meetings and workshops, communication between individual community members, watershed groups, schools, tribes, state and federal agencies about fisheries restoration in the Middle Klamath River Sub-basin.

- **Informative Meetings**

Informative meetings in Orleans, Happy Camp and Scott Bar were conducted during the summer of 2000 to take comments on the Phase I Mid-Klamath River Sub-Basin Plan (Task #4, FY 98') and to showcase current restoration projects underway in the sub-basin. Informative posterboards and reading material summarizing restoration projects were on display for community members at the meetings. Restoration project coordinators from the Karuk Tribe and the USFS were available to answer questions at the Happy Camp and Orleans meetings. Information on current status of fish stocks, hazard fuels reduction, roads restoration, and fish barrier removal projects were presented to community members (Task# 1&4). Community members responded with comments about sub-basin restoration efforts and planning strategies. Comments are currently being incorporated into the next phase of the Draft Middle Klamath River Sub-basin Plan.

- **Mid-Klamath & Salmon River Anglers Meeting**

Beginning in March of 1999 the Karuk Tribe, in cooperation with the Salmon River Restoration Council (SRRC), has coordinated and hosted the Mid-Klamath and Salmon River Anglers meetings. The purpose of these meetings is to inform anglers of current fishing regulations, gather comments on restoration needs, and involve anglers in the restoration process through catch monitoring (Task# 1). A biologist from the California Department of Fish and Game (CDFG) trained local anglers on catch monitoring procedures, fish identification techniques, and scale sample collecting. Trained anglers assist biologists by

Anglers learn how to analyze fish scales collecting scales and other creel census information. The group collaborated to develop "fish friendly" release techniques and gear designed to reduce catch and release mortality. Wardens from the CDFG have participated in meetings to convey and clarify newly imposed fishing regulations. In November of 2000, anglers participated in a scale analysis workshop and river float event on the Klamath River (Task# 4). Anglers practiced hands-on analysis of steelhead and salmon scales using the Karuk Tribes microfiche projector. They learned how to determine age and life history patterns of fish by reading scales. The group plans to meets bi-yearly to discuss current fishing regulations and share information on the status of Klamath River fish.

- **Road Restoration Symposium**

In March of 2000, the Karuk Tribe hosted a roads restoration symposium in cooperation with SRRC and the USFS (Task #4). The symposium included presentations from SRRC, USFS and the Karuk Tribe on current Middle Klamath River and Salmon River roads restoration projects. As part of the symposium, the Coordinator led a fieldtrip on Middle Klamath River forest roads. The fieldtrip group visited problem roads along with potential restoration project sites. Road restoration experts from the Karuk Watershed Restoration staff were on-site to answer questions. Other participants in the symposium included CDFG biologists, watershed restoration planners, landowners, and community members.

Community members, SRRC, USFS, CDFG, and Karuk Tribe participating in a road restoration site fieldtrip.

Communication actions in the Middle Klamath River Sub-basin are important mechanisms that involve sub-basin residents in the restoration process. This involvement is important in the Middle Klamath River Sub-basin because of the mix of public, private and tribal ownership that exists.

EDUCATION ACTIONS

Education actions improve the community's understanding of complex restoration issues that have previously been misunderstood in the Middle Klamath River Sub-basin.

- **Assisting with School Site Studies**

Students learned how to measure stream flow, determine dissolved oxygen levels, sample macro-invertebrate populations, and monitor stream temperatures. Other student activities included channel mapping in Merrill Creek to determine the high water lines of past floods. The students are charting results and incorporating them into a long-term monitoring project focused on those watersheds.

The coordination actively assists teachers and students with watershed education projects in Middle Klamath River Elementary Schools. The Coordinator participated in classroom and field activities focused around salmonids and their environmental requirements. The Coordinator helped Junction Elementary School students with watershed education projects at Conrad and Merrill Creeks. These are student-conducted water quality monitoring projects in local tributaries neighboring their schools. Monitoring activities include dissolved oxygen sampling, stream flow measurements, channel cross-sections and macro-invertebrate sampling. The data collected in monthly monitoring fieldtrips is reviewed, analyzed, and discussed through classroom discussion sessions in collaboration with teachers and students. Information is graphed by students onto large classroom graphs that are permanently hung on classroom walls for students, teachers, parents, and visitors to study.

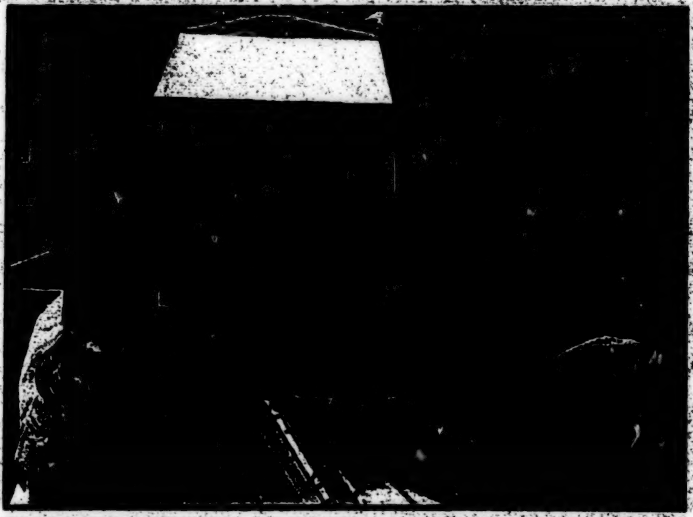
Students & Coordinator taking data on their school study site Conrad Creek. They are measuring dissolved oxygen in this photo.

• Fall Chinook Spawning Survey Training & Whitewater Training

The Coordinator assisted Mid-Klamath River elementary school watershed education programs by helping with their training events, field trips and classroom activities (Task# 2). Working closely with CDFG, USFS, SRRC and Karuk Department of Natural Resources staff, the Coordinator co-organized the Fall Chinook Spawning Survey Training and the Whitewater Safety Training for students.

• GLOBE Project

In March of 1999, a comprehensive 2-day workshop was provided for interested teachers to introduce them to the Global Learning and Observations Benefiting the Environment Project (GLOBE). The GLOBE project was implemented at Junction, Orleans and Witchepec elementary schools (Task#3). The program is designed to involve students in weather monitoring and land studies at their schools. Students for example at Junction School learned to classify cloud types, read a maximum/minimum thermometer, take current air temperature, and measure rainfall volume in the weather monitoring portion of the project. Data is kept by students in a data book and then entered into a web page program. This enables them to share school site weather/land information, via the Internet, with other schools around the world.



Junction School students recording max./min. temperatures in their databook for the GLOBE Project

• Intertribal Salmon Fish Camp & Klamath Outdoor School

The Karuk Tribe supports youth watershed education programs and environmental education camps throughout the sub-basin. Summer environmental education youth camps such as Salmon Camp and

Klamath Outdoor School are part of the watershed education program. During the summers of 1999 and 2000 Karuk Department of Natural Resources staff members were instrumental in organizing fisheries related activities for Salmon Camp and Klamath Outdoor School (Task #4). Salmon Camp offers local kids an opportunity to lean about fisheries resources in the Klamath and Trinity Rivers through field activities such as snorkeling and fish identification. The sub-basin coordinator assisted kids in snorkeling events at Dillon Creek and the Salmon River in July of 1999 and 2000. Kids were instructed in basic identification of all life stages of Middle Klamath River fish. The coordinator also led an open discussion about the habitat requirements for these fish. The coordinator also recruited volunteer effort for Salmon Camp stations in dissolved oxygen sampling and underwater videotaping. The Karuk Department Natural Resources staff gave presentations of traditional fishing methods and fisheries management techniques to kids in whole-group settings.

RESTORATION ACTIONS

- **Restoration Projects**

The Coordinator actively supported the development and implementation of restoration projects in the Middle Klamath River. Planning actions have led to the development of community based restoration proposals, community volunteerism, and open communication between landowners and managing agencies. Community involvement has created restoration projects that otherwise might not have been implemented. Restoration opportunities on mixed ownership landscapes, such as the Middle Klamath River, will continue to increase through further community and landowner support.

The Coordinator has assisted landowners of Rodgers, Stanshaw, and Ti Creeks with cooperation of the Karuk Tribe, USFS, and community members to improve fish access (Task# 1). Landowners in response to low seasonal stream flows, volunteered to monitor and maintain fish passage channels at the mouths of Stanshaw and Ti Creek. During the summer of 1999 the USFS, with cooperation from landowners and the Karuk Tribe, administered the removal of the Rodgers Creek Culvert to improve access to migrating salmon and steelhead. The Coordinator arranged permission from Karuk Tribal Trustees and landowners to grant access to the project site. Landowners agreed to watch the contractor's valuable equipment during the project. Fish passage improvement projects on many Middle Klamath River tributaries (identified in the sub-basin planning process) will require this type of continued landowner participation and cooperation.

Rodgers Creek after culvert removal.

This future fish barrier removal project on Stanshaw Creek will require cooperation with private landowners.

• Community-Based Restoration Proposals

The Karuk Tribe, in cooperation with community members, has developed and submitted restoration proposals that respond to needs expressed during public meetings. Public interest in protecting aquatic resources from catastrophic wildfire was expressed and addressed through the development of hazard fuels reductions proposals. The Coordinator worked cooperatively with community member to develop a watershed planning and hazard fuels reduction proposal. The proposal was submitted to the California Regional Water Quality Control Board for funding. Local landowners submitted a similar proposal to the Partners for Fish and Wildlife Program administered by the U.S. Fish and Wildlife Service.

• Fish Surveys

The Coordinator helped to coordinate spring chinook, summer and winter steelhead surveys in cooperation with the USFS, CDFG, SRRC and community volunteers. The Coordinator planned volunteer efforts that contributed to summer steelhead and spring chinook salmon surveys on Mid-Klamath River tributaries.

Community members participate in salmon and steelhead spawning surveys.

Volunteer identifying a steelhead redd

• River Clean Up

A river clean up float in the summer of 2000 removed garbage on twenty miles of the Klamath River. Community volunteers combed river bars and snorked thru pools collecting garbage washed down stream during recent flooding. A local rafting outfitter loaned rafts and other equipment to the Coordinator for use in the river clean up project. Cooperators in the project were the Karuk Tribe, USFS, SRRC, Klamath River Outfitters and community volunteers.

Middle Klamath River Sub-basin Planning

ABSTRACT

The objective of the FY 99' program is to contribute to the restoration of anadromus fish stocks in the Klamath River using steps outlined in the Draft Phase I Middle Klamath Plan. The Middle Klamath Sub-basin Coordinator, hired by the Karuk Tribe of California (Karuk Tribe) and using components of education and communication, has increased public involvement the Middle Klamath River Sub-basin (confluence of with Trinity River to Iron Gate Dam). Using Phase I Plan guidelines, the coordinator implemented fisheries restoration based workshops, meetings, and elementary school projects throughout the sub-basin. As a result of these activities, Middle Klamath River community members are now actively engaging in restoration efforts for the recovery of Klamath River anadromous fish population.

INTRODUCTION

The Klamath River has historically supported large run of salmon, steelhead, pacific lamprey and sturgeon. These runs have been steadily declining for decades due to increased anthropogenic disturbance and subsequent loss of quality habitat. These fish runs provide an important contribution to subsistence, sport, and commercial fisheries in Northern California and Southern Oregon. Native Americans, including the Karuk Tribe, continue to harvest these fish today and therefore are major stakeholders in the Klamath Basin.

The Karuk Tribe, with funding from the Klamath Task Force, hired a Middle Klamath River Sub-basin Coordinator to plan and coordinate community-based restoration projects. The Klamath Task Force, in their Long Range Klamath Plan, identified public involvement as an important mechanism in achieving restoration goals in the Klamath Basin. The sub-basin coordinator, following public involvement steps outlined in the Phase I Middle Klamath Plan, has enlisted community members through communication and education to participate in the restoration of anadromus fisheries in the Klamath Basin.

DESCRIPTION OF PROJECT AREA

The Mid-Klamath Sub-basin includes the Klamath River and its minor tributaries from Iron Gate Dam down river to the confluence with the Trinity River. The sub-basin covers approximately 1524 square miles and is one of the larger sub-basins in the Klamath Basin. The Klamath National Forest and the Six Rivers National Forest comprise a large portion of the land base except for the privately owned areas east of the Shasta River confluence. Small patches of private and tribal trust land are scattered throughout the sub-basin. The population of the sub-basin is roughly three thousand people spread out in small rural communities along the river. The principal land uses in this sub-basin are timber, mining, agriculture and recreation. Although agriculture is limited to privately owned areas and special use permit area managed by the Forest Service. The main-stem Klamath River is included in the California and Federal Wild and Scenic River Systems and is used for recreational activities such as rafting, kayaking, swimming and fishing. The sub-basin encompasses seven "key" watersheds designated the 1993 President's Forest Plan, the highest concentration in any other Klamath sub-basin. Four wilderness areas (Marble Mountains, Trinity Alps, Red Buttes and Siskiyou Mountains) from two different National Forests, comprise a large portion of high elevation headwater areas.

RESULTS

1. **Community Involvement (900 direct volunteer hours)**
    - **Community Participation (300hrs)**
    - **Community Restoration Planning (250hrs)**
    - **Community Restoration Proposals (350hrs)**

2. **Public Education of Middle Klamath River Fisheries Restoration**
    - **Elementary School Watershed Education**
    - **Informative Meetings and Workshops**
    - **Coordinator Support of Restoration Training Events**

3. **Restoration**
    - **Community based restoration proposals**
    - **Community volunteers for fish surveys**
    - **Fish passage improvement projects**
    - **River clean up projects**

SUMMARY AND CONCLUSIONS

The primary objective, recovery of the Middle Klamath fishery, will involve an understanding of the main stem Klamath River; it's tributaries, along with the effects of land-use and water management practices above and below the dams. Actions from this project are critical steps in achieving the objective. The Karuk Tribe's fisheries restoration planning strategy, outlined in the Phase I plan, includes public outreach to empower the local residents of the Middle Klamath River Sub-basin to develop community-based restoration projects. As part of this project, an education and communication component has been implemented to inform local schools and the general public about habitat protection and restoration. The primary goals of increased public awareness and participation have been achieved through this project therefore enabling progress toward restoration objectives in the Middle Klamath River Sub-basin to continue. Personal interface with sub-basin residents has proven to be the most effective method for achieving public involvement goals. In conclusion, planning actions implemented through this project have increased fisheries restoration opportunities in the Middle Klamath River Sub-basin.

Summary of Costs and Expenditures

Wages	**$12,328.32**
Fringe @ 30%	**$3,736.42**
Supplies	**$1,935.26**
Travel	**$2,000.00**
Subtotal	**$20,000.00**

Administration	$5,000.00
Total Project Cost	$25,000.00
In-kind*	$5,000.00

*In-kind contribution includes; office spaces, phone, copying, mail services, secretarial services, GIS mapping and meeting facilities

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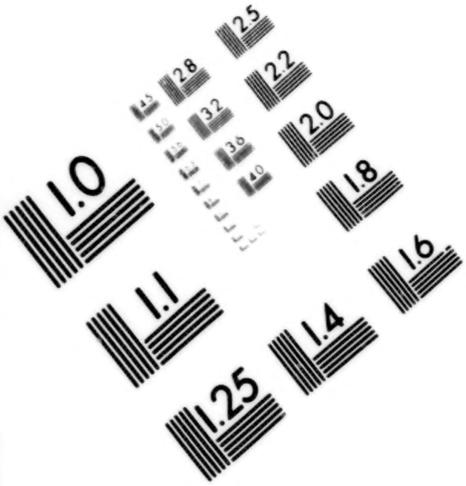
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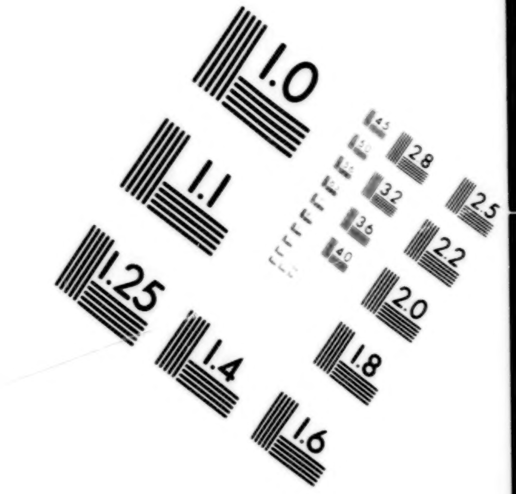
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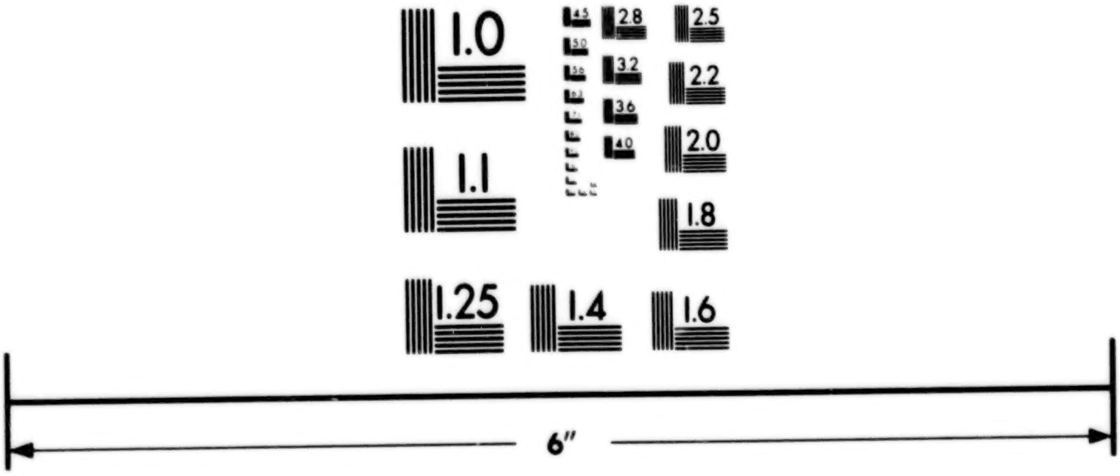
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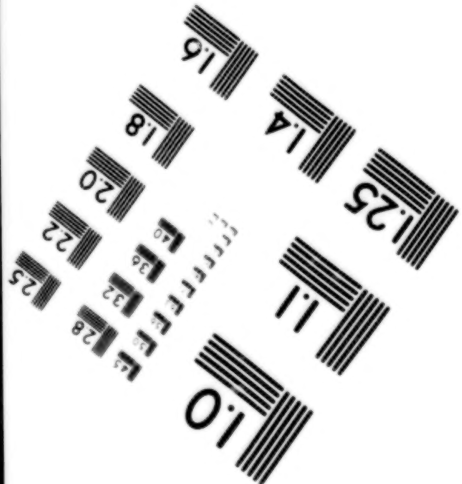
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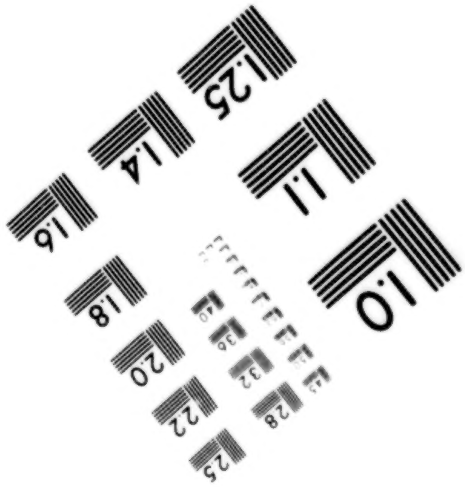
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